

ABSTRACT OF THE DISCLOSURE

An on-chip parallel data generator, including a Built In Self Test (BIST) generator, is integrated into a laser driver array of a parallel optical communication transmitter so that all optical outputs switch simultaneously. The BIST generator requires only one clock input which clocks the BIST generator for all channels. The optical outputs respond to either the on-chip BIST generator or the electrical inputs if a valid signal is present on the inputs.